

a substrate formed without pitted information; and a magnetic layer formed on the substrate;

positioning region having management information for managing the data region and a servo pattern, the management information and the servo pattern being formed as magnetic marks, wherein the information is recorded onto the magnetic layer with the light and the external magnetic field and is reproduced from the magnetic layer by detecting a magnetic leakage field leaking from the magnetic mark.

6. (Amended) A recording and reproducing apparatus for recording information on and reproducing information from an information recording medium including a substrate without pit patterns and a magnetic layer provided on the substrate, the magnetic layer having a servo pattern and management information recorded thereon as magnetic marks, the recording and reproducing apparatus comprising:

an optical head for irradiating the information recording medium with light during information recordation;

a recording magnetic head for applying a recording magnetic field to the information recording medium;

a reproducing magnetic head for detecting magnetic leakage fields from the magnetic marks on the magnetic layer during information reproduction;

a first positioner for positioning the optical head and the recording magnetic head at a target track of the information recording medium on the basis of magneto-optical signals from the magnetic marks; and

a second positioner for positioning the reproducing magnetic head at the target track during information reproduction, with the reproducing magnetic head using the detected magnetic leakage fields leaking from the magnetic marks to position the reproducing magnetic head.



7. (Amended) The recording and reproducing apparatus defined in Claim 6, wherein the first positioner includes:

a detector for detecting light from the magnetic marks;

a first control signal generator for obtaining positional information about the optical head and the recording magnetic head from detected signals from the magnetic marks detected by the detector, and generating a control signal for positioning the optical and recording magnetic heads at the target track; and

an actuator for moving the optical head and the recording magnetic head to the target track on the basis of the control signal.

8. (Amended) The recording and reproducing apparatus defined in Claim 6, wherein the second positioner includes:

a second control signal generator for obtaining positional information about the reproducing magnetic head from signals from the magnetic marks detected by the reproducing magnetic head, and generating a control signal for positioning the reproducing magnetic head at the target track; and

an actuator for moving the reproducing magnetic head to the target track on the basis of the control signal from the second control signal generator.

16. (Amended) A method for positioning an optical head, a recording magnetic head and a reproducing magnetic head at a predetermined track of an information recording medium including a substrate and a magnetic layer without recording pits provided on the substrate, the magnetic layer having magnetic marks recorded thereon which represent a servo pattern and management information, the method comprising the steps of:

irradiating the information recording medium with a laser beam to detect magneto-optical signals from the magnetic marks, and controlling the positions of the optical head and the recording magnetic head on the basis of the detected magneto-optical signals, during information recordation; and



